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MARYLAND DEPARTMENT OF HEALTH & MENTAL HYGEINE

Enviromental Public Health Tracking

Welcome Aboard!

Environmental Public Health Tracking (EPHT) wants your input!! Welcome to the project and thank you for taking the time and effort to contribute to this important initiative. During the next 12 months, Maryland's data managers and data users will have a chance to create a plan for getting the most out of their health and environmental data resources. Your knowledge and experience is needed to make this a meaningful plan. I hope you will join us in the Planning Consortium (a steering committee with diverse membership) and in the IT and Data Users Workgroups which are currently forming. What will our environmental health data resources be capable of doing in ten years? Come help us create the vision!

Dr. Diane Matuszak
Director, Community Health Administration
DHMH

EPHT - The Environment and Health Connection

The environment plays an important role in health and human development. This fact is not lost on our society, as we spend considerable effort to prevent and or correct environmental hazards and environmentally-related illness. Many of our most successful public health campaigns have been in response to environmental factors. The sanitation revolution of the early 20th Century is an excellent example. Today, it is commonplace for scientists to report discoveries of possible new linkages, or to clarify known linkages, between disease and the environment, and we often hear about these in the media.

Despite the interest in environment health, the fact remains that few of our monitoring systems for health and the environmental are used to their full potential. In 2000, the Pew Environmental Health Commission concluded that the nation could do much more to integrate its health and environmental data resources and make them more valuable in efforts to prevent environmentally-related disease. Building on this report, the Centers for Disease Control and Prevention (CDC) recently awarded $14.2 million to 20 state and local health departments and 3 schools of public health to begin environmental public health tracking networks and to increase capacity in environmental health.

EPHT is defined as the ongoing collection, integration, and analysis of data about (1) health effects, (2) environmental hazards, and (3) exposure to environmental hazards. CDC's EPHT initiative promotes the development of state and national data networks for direct electronic reporting and linkage of data about health and the environment. By integrating data resources, we will be better able to recognize and respond to environmental threats. Public health efforts will be more efficient, more timely, and more responsive to the public.

EPHT—Developments in Maryland

The Maryland Department of Health and Mental Hygiene has a 3-year grant to pursue EPHT in the State. Maryland's project will create a plan for an integrated network of data resources. In order to do this, a variety of questions will be asked, such as: How useful are our existing databases? What new information technologies and activities can improve their value for environmental health? What is the best approach for an integrated data network? How can we use data as a strategic public health resource? The project will draw input from a wide audience, including experts in information technology and public health, data managers, policy makers, and data users from many disciplines.

Maryland's project has the following primary goals:

- Build partnerships with stakeholders
- Assess databases for their utility in EPHT
- Assess the needs of data users
- Expand laboratory resources for exposures to environmental agents
- Evaluate relevant statutory and regulatory authorities
- Develop a plan for an EPHT system that integrates databases, complies with national information technology standards, and enhances biomonitoring capacity
- Conduct a pilot project that links data resources

Operationally, the Maryland project relies on several teams:

- Staff members from DHMH and Maryland Department of the Environment (MDE). This group has launched the project and will continue to oversee its progress and insure the completion of tasks. A key goal of the staff is to insure that collaboration is routine and that stakeholders make a large contribution to the project.
- A Planning Consortium. This group is an advisory committee whose members include experts in information technology, public health, researchers, and other interested stakeholders. Members of the Planning Consortium are asked to give advice regarding the design and implementation of the project and its products. They are also asked to help explain the project to the wider community and to participate in workgroups.
- Workgroups. The workgroups are largely advisory in nature and will take on special issues in greater detail. Information technology and data users' workgroups are planned initially.
- The Johns Hopkins Center for Excellence in Environmental Public Health Tracking. Individuals, from the Johns Hopkins Bloomberg School of Public Health, will support the efforts of state and local health departments through technical expertise, training, and research.

The Planning Consortium held its kickoff meeting on April 2 at MDE. The project team joined members of the Johns Hopkins Center for Excellence in EPHT, Dr. Tom Burke and Ms. Beth Resnick, in outlining the national and State projects. The Consortium will meet quarterly.

The first meeting of the Information Technology (IT) Workgroup took place on May 21. The members discussed the development of a metadata repository (MDR) for health and environmental databases. Metadata are descriptions about a database, its purpose, composition, and management. An MDR is considered to be an indispensable resource for data users and is recommended as an early objective for the EPHT project.

Participants and interested parties will soon be able to check the latest news and events at the Maryland EPHT website. A bulletin board and list-serve are also being considered to further enhance communications.

In the coming months, the project will continue to reach out to individuals and groups that might be interested in the EPHT concept, work with members of the Planning Consortium, gather existing database inventories, design the MDR and distribute surveys in order to collect additional metadata, initiate the Data Users' Workgroup, finalize plans for EPHT training events scheduled for Fall 2003, and continue participation in national workgroups.

EPHT—A GIS Perspective

In today's world, accurate data are needed to help make everyday decisions. Data standards and their proper use are important parts of the effort to get the most out of our databases. Geographical Information Systems (GIS) require that different databases be combined, and, as a result, have been a driving force in the issues of data quality and compatibility.

A GIS combines layers of information about a particular place in order to give you a better understanding of that place. The layers of information you combine will depend on your purpose, for example, to find the best location for a new hospital, track the changes in disease rates over time and space, track changes in the environment, analyze environmental damage, map demographic patterns, and so on.

Geographic information systems can greatly facilitate the analysis of environmental and public health data, and their use will be fully anticipated by the future EPHT plan. State and local agencies and academic institutions are already working extensively with GIS and data that comply with national and state standards.

DHMH Laboratories take on EPHT

In support of the EPHT grant, the Division of Environmental Chemistry at DHMH is responsible for developing and validating test methods for the analysis of chlorinated pesticides and the metabolites of organophosphate and pyrethroid pesticides in human urine specimens. These compounds can be evaluated at DHMH using newly purchased gas chromatography–mass spectrometry equipment. Organophosphate (OP) pesticides represents about 8% of the total pesticides used in the United States and about half of the total insecticides used. More than 1000 synthetic pyrethroids have been synthesized and made available for use in today's market. They are among the most active insecticides in terms of their effective concentrations.

DHMH has hired a laboratory scientist to develop and validate test methods for the above classes of pesticides in human urine. The Biomonitoring Laboratory has received training for the equipment and will soon be ready to analyze specimens.

EPHT Calendar—Upcoming Events

Meetings and Important Target Dates	
1st IT Workgroup Meeting	May 21, 2003, 2-4 p.m. Location: MDE, Aqua Room
2nd Planning Consortium Meeting	June 19, 2003, 10 a.m. to Noon Location: MDE, Aqua Room
Distribute initial database survey	June 2003
Distribute initial survey of needs and priorities of data users	July 2003
EPHT Workshop for IT and environmental health personnel	November 2003
EPHT presentations to health care providers	November 2003
Complete survey analysis and reports	Jan-Feb 2004
Complete statewide plan for EPHT	April 2004

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DHMH promotes the health of all Maryland citizens by providing health and support services; by improving the quality of health care for all; by providing leadership in the development and enactment of responsible and progressive health care policy; and by serving as the advocate for public health initiatives and programs to improve the quality of life for all Marylanders. Maryland's public health is our business.

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